

Message Information

Date 01/05/2012 10:01 AM
From "Yordy, Karyn" <kyordy@pa.gov>
To LisaP Jackson/DC/USEPA/US@EPA
cc "Reim, Heather" <hreim@pa.gov>
Subject Lisa Jackson - DEP Study Ltr from DEP

2012 JAN -5 10:12:00

2012 JAN -5 10:12:00

Message Body

Sent on behalf of Secretary Krancer -

Ms. Jackson,

This letter will be mailed to you today.

Thank you,
Karyn

Karyn Yordy | Information Specialist
Secretary's Office
Department of Environmental Protection
Rachel Carson State Office Building
400 Market Street | Harrisburg, PA 17101
Phone: 717.787.2815 | Fax: 717.705.4980
www.depweb.state.pa.us



Lisa Jackson - DEP Study Plan .pdf



Lisa Jackson - DEP Study Plan - Shale Gas is Shaving Bills - Enclosure 2 .pdf



Lisa Jackson - DEP Study Plan - Testimony - Enclosure 1.pdf

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DEPARTMENT OF ENVIRONMENTAL PROTECTION

SECRETARY

January 5, 2012

The Honorable Lisa P. Jackson
Administrator
U.S. Environmental Protection
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Re: Plan to Study the Potential Impacts
of Hydraulic Fracturing on Drinking Water Resources

Dear Administrator Jackson:


Our technical experts have reviewed the federal Environmental Protection Agency's Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources (Study Plan). We know that several Pennsylvania sites are included in the Plan and we stand ready to assist EPA in completing the study. I hope the EPA will be willing to work together with the Pennsylvania Department of Environmental Protection (DEP) to move this work forward in a cooperative, logical, and scientific manner. I personally invite you and your staff to work with me and my staff in a constructive manner to complete your study.

As a result of Pennsylvania's extensive history with hydraulic fracturing of oil and gas wells and our long experience overseeing this activity, the potential impacts of this activity have long been studied and known here. Thus, we think that we can be of valuable assistance to the EPA in this regard and DEP is ready, willing, and able to help the EPA in its efforts on this study. We believe we can help EPA better understand the facts and the science related to this industry in Pennsylvania.

As you yourself have said, increasing American's natural gas production is a good thing because it produces a cleaner type of energy than other fossil fuels. The Department of Energy's (DOE) Shale Gas Subcommittee's recent 90-day report states that natural gas is a cornerstone of the U.S. economy, providing a quarter of the nations' total energy. Moreover, production from shale formations has gone from a negligible amount just a few years ago to being about 30% of the total U.S. natural gas production. This, says the DOE report, has brought lower prices, domestic jobs, and the prospect of enhanced national security due to potential production growth. We are certainly seeing all of that unfold in Pennsylvania right now. For example, the *Philadelphia Inquirer* recently ran a feature report entitled "*Shale Gas is Shaving Bills*" stating that consumers being served by five utilities in Southeastern Pennsylvania and New Jersey are saving about \$500 million per year on their gas bills. Costs to consumers are down between 37% to 52% since 2008. This directly reflects the steady fall in market prices attributable to new supply of shale gas. A copy of the *Inquirer* article is enclosed.

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We, in Pennsylvania, would like to see EPA's efforts geared toward a cooperative, science based, and peer-reviewed analysis. I have read Governor Mead's letter to you dated December 20, 2011, regarding the technical, scientific, and cooperative shortcomings of EPA's activities with respect to Pavilion but there is no need to further discuss those issues in this letter. Suffice it to say, we hope that EPA's efforts in Pennsylvania are not marked by the same rush to conclusions and other deficiencies as occurred at Pavilion. Like Governor Mead, I ask for your commitment that EPA will cooperate with Pennsylvania's experts in this process. I also ask for a full and candid exchange of information as between EPA and the Commonwealth of Pennsylvania and that your efforts be guided by sound science and the law instead of emotion and publicity.

We realize and recognize that EPA is very new to all of this and the EPA's understanding of the facts and science behind this activity is rudimentary. Fortunately, Pennsylvania is not new to all of this and we have a long history of experience at overseeing and regulating oil and natural gas extraction activities in our state, including hydraulic fracturing. Pennsylvania is and has been on the forefront of effective regulation and oversight of the safe and environmentally sensitive operation of oil and gas extraction activities. That is important to all of us and a key priority of Governor Corbett and me as DEP Secretary. In addition to our long history of oil and gas production in our Commonwealth, we have a very robust state regulatory program for oversight of natural gas development, including natural gas development from unconventional formations. I have enclosed for your convenience recent testimony I have provided to the United States Congress which describes the very comprehensive Pennsylvania regulatory program.

In September 2010, the State Review of Oil and Natural Gas Environmental Regulations (STRONGER) completed its review of Pennsylvania's hydraulic fracturing regulations and concluded that our oil and gas program was well-managed, professional and meeting its objectives of protecting public health and the environment. As part of the STRONGER review, DEP identified the following potential impacts to fresh water from hydraulic fracturing activities:

- 1) Pollution through diminution of water resources
- 2) Surface spills
- 3) Leaking pits or tanks
- 4) Communication with an abandoned well during well stimulation
- 5) Fracturing coalbed methane wells with substances other than freshwater and sand
- 6) Defective casing or cementing that permit hydraulic fracturing to occur in unintended zones or formations
- 7) Direct communication between the target formation and fresh groundwater

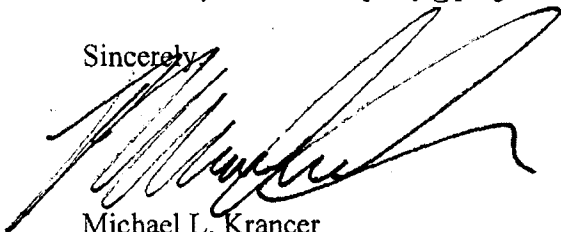
January 5, 2012

This list of potential impacts identified by DEP is virtually identical to the hydraulic fracturing water lifecycle issues identified by EPA in the Study Plan. DEP agrees with EPA that the scope of this study is appropriately limited to the hydraulic fracturing water lifecycle issues identified above and in the Study Plan.

We in Pennsylvania are ahead of the curve in regulating oil and gas extraction activities, including hydraulic fracturing in unconventional formations. It is important to note that hydraulic fracturing in unconventional formations in Pennsylvania occurs at a depth of about 8,000 feet below the surface while our groundwater resources are at about the several hundred to 1,000 feet below the surface. We have very aggressive well casing and cementing requirements and wastewater handling requirements as well. We would be happy to work with your staff directly to fully educate them on all aspects of our regulatory program aimed at the safe operation of oil and gas extraction activities if, and when, you so desire. In the meantime, the Congressional testimony included herein will give you solid background on that topic.

Staff from DEP's Office of Oil and Gas Management is already working cooperatively with EPA on the retroactive and prospective studies in Pennsylvania and appreciate EPA's willingness to share data it collects on a timely basis. DEP will continue to make every effort to assist EPA to complete its work within the timeframes specified in the Study Plan. We will make our staff and resources available to you to assist in your fact finding. Scott Perry, Acting Deputy Secretary for the Office of Oil and Gas Management, can be your point of contact with DEP. He can be reached by e-mail at scperry@pa.gov or by telephone at 717.783.9438.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael L. Krancer', is written over a horizontal line.

Michael L. Krancer
Secretary

Enclosures

cc: PA Congressional Delegation

Shale gas is shaving bills

Local utilities are charging less as the cost of natural gas falls.

By Andrew Maykuth
INQUIRY STAFF WRITER

In the raging shale-gas debate, there is much disagreement about the economic benefits of drilling.

An Ohio State University report released this week argues that industry-funded studies hype the number of jobs created in Ohio from drilling the Utica and Marcellus shale formations. The 27-page study is already providing ammunition to anti-drilling activists who believe that the environmental risks of shale gas outweigh the economic benefits.

While rival academics can argue about which econometric model is better at predicting the future, a relatively narrow measure of the benefit of shale gas is already affecting our monthly utility bills.

The five big regional utilities that serve Pennsylvania and New Jersey customers have reduced their prices on the gas portion of bills by amounts ranging from 37 percent to 52 percent since Dec. 1, 2008, reflecting the steady fall in market prices that experts attribute to new supplies of shale gas.

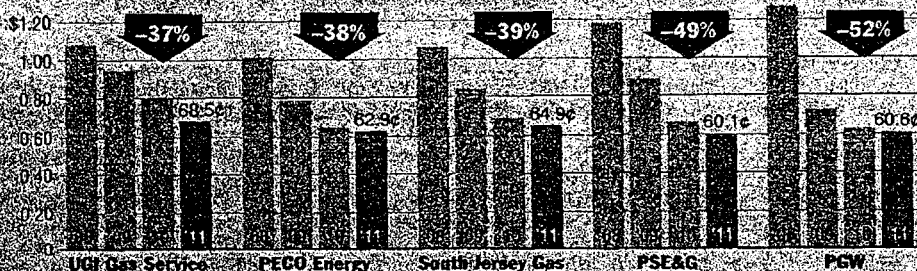
For the 500,000 customers of Philadelphia Gas Works, the cost of gas has decreased by more than half since December 2008, from \$1.27 per hundred cubic feet (ccf) to 61 cents.

What's that mean to a typical PGW customer who uses 900 ccf of natural gas a year? Annual savings of \$594.

That price only reflects the commodity charge in the bill, which utilities change periodically to respond to market fluctuations. Utilities aren't allowed to mark up the price,

The Falling Rate of Natural Gas

Commodity costs per 100 cubic feet, or therm, of gas



SOURCES: The utility companies

The Philadelphia Inquirer

so it should reflect what they actually pay for the fuel.

The other part of the bill is the delivery charge, or base rate, which covers the costs for customer service, billing, maintenance of the distribution system and profit.

Typically, the delivery charge is the smaller part of the bill. But the cost of the natural gas has decreased so much in three years that the commodity now makes up only 40 percent of PGW's total rate, down from 61 percent in 2008.

Including both the gas cost and the delivery charge, PGW now charges 55 cents less per ccf than it charged in 2008. That translates into \$495 in annual savings, per household.

Other utilities in the region report similar numbers. A Peco Energy Co. customer is paying about \$350 less a year for gas. Public Service Electric & Gas Co. in New Jersey says a winter monthly bill for a typical customer is down 34 percent from 2008.

Though the utilities' gas prices are now at their lowest since 2002, customers in this region could see even more

savings in the future as production increases from Pennsylvania's Marcellus Shale wells.

About a third of the price that utilities pay for natural gas goes to pipeline companies that transport the fuel from the Gulf Coast to the Northeast. Most utilities like PGW have purchased long-term capacity on the pipelines to assure they get enough supply to meet their customers' demands.

As more pipelines are built in the region, local production could displace gas coming up from Texas and Louisiana, reducing the transmission costs for utilities in the Philadelphia area. It won't happen immediately, because utilities will have to let their pipeline contracts expire first.

But the wave is already starting. Last week, UGI Central Penn Gas Inc. tied 15,000 customers in northern Pennsylvania directly to Marcellus Shale gas producers, bypassing the big Interstate transmission system. Its customers now pay 54.7 cents per ccf for gas, about 20 percent less than UGI Gas Service customers

in other parts of Pennsylvania.

"If your distribution system is in proximity to the wells, there's a really substantial potential savings," said Joseph Swope, a UGI spokesman.

A study this month by market research firm IHS Global Insight projected that natural gas prices will be stable for decades. That's an opportunity for gas utilities to poach customers who use heating oil and propane, whose prices are tied to soaring crude oil costs.

PGW is offering a bonus of \$500 for oil customers to switch, and Peco is offering \$400. Additional bonuses for installing high-efficiency furnaces also may be available.

The cost to convert is prohibitive for customers who don't live near a gas main. But Peco says that more than 95,000 residential customers live along a gas main and are not using gas for heating now. They may be hearing from the utility soon.

Contact staff writer Andrew Maykuth at 215-854-2847 or amaykuth@inquirer.com.

Johnson, McNeil Consumer Health Division, with headquarters and a factory in Washington, is still issuing recalls of products. McNeil recalled certain lots of Motrin IB tablets and tablets in three packaging sizes this week.

The lot numbers are posted on McNeil's Statemix Motrin site, www.motrin.com. The lot number is on the side of the carton.

The products were distributed in the U.S., the Bahamas, Fiji, Belize, St. Lucia and Jamaica.

J&J said earlier this year that it is spending \$1 million to fix the manufacturing problems at the McNeil plants, which are in Fort Washington, Pa., and Las Piedras, Puerto Rico. The U.S. Food and Administration found violations of the Food and Drug Cosmetic Act in 2009 and 2010, which prompted closing of the Fort Washington plant in 2010. This is still not producing medicines.

The Lancaster and Las Piedras plants are operating under greater supervision that is part of the consent agreement by the company after negotiations with prosecutors from the U.S. Justice Department and the

Philly Deals

Joseph N. DiStefano's blog on regional commerce
www.philly.com/phillydeals

Teva soothes neighbors' new Phila. drug warehouse

Suburban neighbors of Teva Pharmaceuticals' 120,000-sq-ft automated warehouse and truck yard at the onetime Budd Co. site on Red Lion Road in Northeast Philadelphia didn't immediately join the celebration over attracting a few hundred consumer trucking and logistics jobs to the site, mostly on a golf course.

The Teva property adjoins lower Moreland, an area where local taxes are high, redevelopment is slow and are low along the flood plains, and local market is approaching jam levels during rush hours. Local supervisors, led by chairman Bill Blumhardt, had pressing Teva to talk, she and township manager Miller finally met with Teva managers, Bill Miller, Bobby Clarke this week. Here's how it went.

They have indicated that truck traffic, the main concern, will be going out toward Route 1 and the Philadelphia Airport, not east. As far as commuter traffic, after three years they are expecting 250 employees over the road. So there will be some impact on our roads. We want them aware of our intersections, we considered doing traffic engineering studies. We had not been in any of their traffic studies.

Also, they said stormwater, which is a big issue, will be handled by the township. We had not been in any of their stormwater studies.

Testimony of
Michael Krancer, Secretary
Pennsylvania Department of Environmental Protection
Before the U.S. House of Representatives Committee on Agriculture
Subcommittee on Conservation, Energy, and Forestry
1300 Longworth House Office Building
Thursday, November 3, 2011
10:00 a.m.

Introduction

Chairpersons Thompson and Holden and members of the Subcommittee, thank you for the opportunity to appear before you to discuss Pennsylvania's efforts to comply with the U.S. Environmental Protection Agency's (EPA's) expectations for the Chesapeake Bay Total Maximum Daily Load (TMDL), the Pennsylvania Phase 2 Chesapeake Watershed Implementation Plan (WIP) and their impacts on rural communities.

Pennsylvania is committed to protecting and enhancing our streams and watersheds. The efforts here at home will in turn help in further restoring the Chesapeake Bay by 2025. Over the years significant progress has been made to reduce nitrogen and phosphorous pollution of local waters in Pennsylvania's watersheds. According to EPA's current watershed model, when compared to 1985, Pennsylvania has achieved 27% of the nitrogen reductions, 31% of the phosphorous reductions, and 50% of the sediment reductions needed to reach the 2025 restoration targets. This is real progress but more needs to be done. When compared to current 2010 progress reported by the watershed model, Pennsylvania needs to achieve an additional 33.23 million pound reduction in nitrogen, 1.26 million pound reduction in phosphorous, and 524.4 million pound reduction in sediment by 2025. It should be noted that EPA's watershed model can be a useful tool to help guide management actions and project their results. It is not, however, sufficiently precise to measure actual progress or lack thereof. It should not be used in a regulatory context to determine whether an enforcement action or other penalty is appropriate.

Basic Statutory Background

The federal Clean Water Act requires states to assess their waterbodies to identify those not meeting water quality standards. If a waterbody is not meeting standards, it is listed as impaired and reported to the EPA. Chesapeake Bay tidal waters in Virginia, Maryland and the District of Columbia were listed as impaired by the states and EPA in 1998. The Act then requires development of a Total Maximum Daily Load (TMDL) for the pollutants that caused the water quality violations. A TMDL calculates the maximum amount of a specific pollutant that a waterbody can receive and still meet water quality standards. It also establishes a pollutant budget or "diet," which allocates portions of the overall pollution load to the pollutant's various sources. The Chesapeake Bay TMDL published by EPA on December 29, 2010 establishes load allocations for nitrogen, phosphorus and total suspended solids based in part on Pennsylvania's Chesapeake WIP. In the TMDL, EPA also established a TMDL accountability system, including

the development of a Phase 2 Chesapeake WIP and two-year milestones. Pennsylvania completed its Phase 1 WIP in December 2010 at the major river basin scale (e.g. Susquehanna). The draft Phase 2 WIP is due to EPA on December 15, 2011, and the final is due March 1, 2011.

Pennsylvania Success Stories

Pennsylvania has a long history of success since it became active in Chesapeake Bay restoration activities in 1983. Much of this success is due to the support of Pennsylvania's General Assembly and partnerships with the agricultural sector. This leadership derives from the Commonwealth's set of agricultural stewardship firsts, including:

- The first Bay state to require mandatory farm nutrient management plans;
- The first Bay state to regulate nitrogen and phosphorus in its nutrient management program;
- The first EPA-approved regulatory program for concentrated animal feeding operations;
- The first Bay state to permanently preserve 20 percent (more than 3 million acres) of land in the watershed.
- The first Bay state to meet its goal to plant 3,736 miles of forest buffers by the year 2010. The state has planted a total of 3,894 miles of forest buffers along waterways since 2002; and
- Pennsylvania is home to the largest Conservation Resource Enhancement Program (CREP) in the entire nation. The CREP program delivers more than \$50 million in state and federal assistance and targets key edge-of-stream BMPs to maximize water quality.

Recent History With Respect To the Phase 2 Water Implementation Plan Process

You are probably most interested in the most recent events regarding the Phase 2 WIP process as that is what has been the topic of most of the discussion and some very recent media attention in both Pennsylvania and Virginia. So, let me address that first.

In EPA's original March 2011 Phase 2 WIP guide, EPA expected each state to sub-divide its load allocations to a more local level in Phase 2 (e.g., county). As Pennsylvania and the Chesapeake watershed jurisdictions began to review Chesapeake Bay watershed model outputs at county levels, they determined that the model had serious technical deficiencies that do not provide full nutrient reduction credit for several nonpoint source Best Management Practices (BMPs). Moreover, EPA was intent on using the model in the Phase 2 WIP process as a metric to drive huge expenditures and determine compliance where the only proper role of any model would be as a prediction tool.

Pennsylvania aired these technical concerns early on. We directed a letter dated May 26, 2011 to Administrator Jackson on this topic. (A copy of that letter is attached hereto as Exhibit A). EPA was dismissive of the technical concerns outlined. Pennsylvania and other states continued to air these technical concerns to EPA at a September 16, 2011 meeting of State Secretaries and Deputy Secretaries with the EPA Region III Regional Administrator. Again, EPA was dismissive saying basically to us "get over it" or "get beyond it". EPA's public statements were similar. Indeed the Senior EPA Policy Advisor on the Chesapeake Bay dismissed without

dealing with the technical points the states had been making by quipping in a Virginia newspaper article, "let's get on with it." (A copy of that article is attached hereto as Exhibit B). The issue proved hard for EPA to escape as public media attention rose as is evidenced by the Virginia newspaper article just mentioned and a front page article of the October 2, 2011 *Altoona Mirror* under the headline: "Krancor: EPA Is Rushing Bay Cleanup Regulations; Pennsylvania Experts Disagree With Agency's". (A copy of the *Altoona Mirror* Article is attached as Exhibit C).

I can report, though, that perhaps the persistence and the public media attention may have proven worthwhile. Right after the *Altoona Mirror* story ran, we received a letter from the Regional Administrator in which EPA, for the first time, recognizes that there are limitations to the application of the watershed model at a finer scale, and clarified its Phase 2 WIP guide to allow jurisdictions to submit watershed model input decks at the major basin (e.g. Susquehanna) scale. The letter also says that the model is one of several points by which EPA will measure the state's performance. Also, EPA has modified to some degree the nature of what has to be in the Phase II WIP—EPA says that the Phase II WIPs don't have to be so specific—we can identify "local area targets" or actions that local areas can take to fulfill their contributions toward meeting Chesapeake goals. Further, EPA also said that "common sense" will be used to assess progress by jurisdictions in developing their Phase 2 WIPs and achieving milestone commitments, and consider other tools and data besides the model.

Time will tell whether EPA is serious or just placating, especially regarding the comment about using "common sense". We certainly still have disagreement with EPA on the nature of the model and what it should or can be used for. However, it does appear that, at least for the Phase 2 WIP process, we may now be able to proceed with that in an "agree to disagree" mode

Ultimately, the jurisdictions and EPA have the same goal – to remove the Chesapeake Bay from the CWA list of impaired waters and to improve local water quality. As long as EPA uses a common sense approach, Pennsylvania will continue to be a strong partner at the table.

Having gotten you up to date, let me now go back a bit in history and explain how we got to where we are now which will give an opportunity for me to provide more details about the actual process.

Phase 1 WIP Background

In Pennsylvania, our Chesapeake watershed stakeholders were actively involved in the development of our Phase 1 WIP and were a major reason that we were able to draft the plan successfully. The Department of Environmental Protection (DEP) convened a Chesapeake WIP Management Team to guide the development of the WIP. Over 125 individuals participated in the Management Team and its three workgroups focusing on agriculture, development and wastewater issues. Pennsylvania submitted its draft Phase 1 WIP to EPA on schedule – September 1, 2010. DEP continued to work with EPA to refine the WIP through the end of December. While EPA praised Pennsylvania in a December 29, 2010 letter, ultimately, when EPA issued the Chesapeake Bay TMDL, they imposed enhanced oversight and potential actions for agriculture and wastewater, and a regulatory "backstop" for urban/suburban stormwater.

Pennsylvania's Phase 1 WIP included both nonpoint source and point source reduction strategies. The nonpoint source strategy included a long list of Best Management Practices (BMPs) submitted to EPA's Chesapeake Bay watershed model. The point source component included the Point Source Compliance Strategy for wastewater treatment plants previously adopted in 2006. Because the point source strategy did not change, our Phase 1 WIP focus was to identify and develop the programs that support the implementation of non-point source BMPs to meet Pennsylvania's TMDL allocation.

Pennsylvania's WIP is based on three themes. The first is Milestone Implementation & Tracking. EPA uses the Chesapeake Bay watershed model to measure state progress – but the watershed model only knows what is reported to it. We determined that there are many BMPs being installed voluntarily with no government funding that do not get reported to the model. DEP supported several pilot projects to get a handle on the unreported BMPs. For example, in Bradford County, it was determined that 85% of the no-till activities are not cost-shared or reported to the watershed model. The WIP includes several new initiatives to improve BMP reporting.

Another key initiative is to promote the "Million Pound" project. The goal is to achieve a million pounds of nutrient reductions annually through grants and other funding sources. Pennsylvania Infrastructure Investment Authority (PENNVEST) funds are newly targeted to green initiatives and non-point source projects. Pennsylvania's Growing Greener grants give special consideration for Chesapeake Bay nutrient reductions.

The second theme of Pennsylvania's WIP is Advanced Technology and Nutrient Trading. Pennsylvania has learned that harnessing market forces can be an effective way to achieve environmental regulatory goals at less expense than traditional command and control regulations. For example, in 2008, Fairview Township decided to use credits to meet its nutrient reduction obligation with a cost savings of approximately 75%. The Commonwealth has been leading the way nationally in developing its nutrient trading program. The program is one of the first programs in the country to have both nonpoint sources and point sources participating in a nutrient credit trading program. Pennsylvania's program is also designed to be protective of the Chesapeake Bay by capping the amount of credits that can be annually traded.

Pennsylvania has completed over 10 nonpoint source to point source trades – where farmers go above and beyond their compliance requirements to sell credits to wastewater treatment plants. DEP has certified 97 projects for credit generation. And PENNVEST now has a track record of successful auctions to buy and sell credits. PENNVEST completed two auctions in 2010 and has 2 auctions planned for 2011. Auctions will continue next year and the years beyond. In addition to the day to day operation of the nutrient trading program, DEP is working with EPA Region 3 as they complete programmatic reviews of offset and credit trading programs across the Chesapeake Bay watershed. DEP worked closely with EPA when developing Pennsylvania's nutrient trading program, which EPA supported at the time. DEP can understand EPA's desire to examine the Bay jurisdictions' programs from a regional perspective. But Pennsylvania feels

strongly that the Federal agency should respect the Bay jurisdictions' programs that are working successfully toward the restoration and maintenance of the water quality of the Chesapeake Bay.

Pennsylvania has promoted advanced technology projects by providing financing loans from PENNVEST. DEP has been working with the Department of Agriculture and a number of companies looking to install various technologies such as co-generation on dairy, poultry and hog operations. Many of these technologies can produce electricity and marketable soil amendments; reduce methane emissions; and generate renewable energy, nutrient reduction and carbon credits which can then be sold. Projects of this nature can support three priorities in the Chesapeake Bay region: maintaining a vibrant farming economy; restoring and protecting the water quality of Pennsylvania streams and the Chesapeake Bay; and providing crucial economic development benefits to rural businesses and communities. Manure-to-energy projects are just the first of many promising technologies the Commonwealth supports that advance broad based environmental benefits.

The third theme of Pennsylvania's WIP is enhancing compliance efforts for wastewater treatment plants, agriculture and stormwater. Pennsylvania's Point Source Strategy developed in December 2006 remains in place – and the Nutrient Trading Program provides an option for compliance. New funding from EPA will support compliance and inspection activities for our CAFO, stormwater and agriculture regulatory programs. For agriculture, for instance, each Pennsylvania conservation district will be required to undertake 100 farm visits in the first year. Over 4,000 farm operations will be notified of Pennsylvania's existing environmental requirements.

Phase 2 WIP

On August 1, 2011, EPA issued revised TMDL planning targets for the Phase 2 WIPs based on a revised Chesapeake Bay watershed model. While the numbers look different from Pennsylvania's 2010 TMDL allocations, they require the same level of effort as for the 2010 TMDL allocations. To facilitate local implementation of necessary reduction actions to meet the allocations, EPA directed the Chesapeake watershed states to sub-divide the reductions by local areas in the Phase 2 WIP. Pennsylvania chose to sub-divide loads at the county-level, as the EPA Chesapeake Bay watershed model is based in part on county level data. As discussed earlier in this testimony, that guide has since been clarified to allow jurisdictions to submit watershed model input decks at the major basin (e.g. Susquehanna) scale instead of more local areas.

For the Phase 2 WIP, we need to build on local partnerships – those efforts going on in county conservation districts and municipalities that work to improve local stream water quality. Lancaster County's Clean Water Consortium, Lycoming County's Nutrient Trading Program, York County's Integrated Water Resources Plan, and the Conewago Creek Watershed Initiative are examples of local people taking local action to restore local streams.

On August 3, DEP convened a Phase 2 Chesapeake WIP Summit, our first major outreach to communicate to local stakeholders on what EPA expects for the Phase 2 WIP. On August 10,

EPA held a Chesapeake Bay Model Workshop at the Rachel Carson State Office Building, to inform stakeholders on the models that are used to build our WIPs and measure our progress.

DEP worked with its WIP Management Team and workgroups to develop draft goals at the county level throughout the Chesapeake watershed. We took the Draft WIP County Planning Target sheets to eight Regional County Workshops, starting October 13 through November 2, to ground-truth them and receive feedback. Invitees to the workshops included county conservation district managers, county planning commission directors, and municipalities representing the PA League of Cities and Municipalities, PA State Association of Township Commissioners, PA State Association of Boroughs, and the PA State Association of Township Supervisors. However, anyone was welcome to attend and listen to the discussions.

The county planning targets addressed only those loads that can be reduced by Best Management Practices (BMPs). This included both regulatory and non-regulatory loads for agriculture, stormwater and forest. Wastewater treatment plant point source reductions were not included because they were previously addressed by the 2006 Chesapeake Bay Compliance Strategy. The county planning targets were for planning purposes only, and do not become regulatory allocations at the county level. The identified Pollution Reduction Actions represented one scenario from the Chesapeake Bay watershed model that meets the reduction targets. There are other equally valid combinations of actions that could also meet the reduction target. With input from counties and municipalities, DEP will then prepare its Draft Phase 2 WIP watershed model input deck at the major basin scale for submission to EPA by December 15.

Similar to the Phase 1 WIP, EPA will evaluate each state's Phase 2 WIP. Should we meet EPA's expectations, there is opportunity to have EPA remove the TMDL "backstop" imposed on the urban stormwater sector. That backstop provided notice that EPA would consider expanding the Municipal Separate Storm Sewer Systems (MS4s) coverage in Pennsylvania's Chesapeake watershed should we not make sufficient progress in reducing urban stormwater loads. If we do not meet EPA's expectations, they could impose additional consequences. We are looking for EPA to bring its new "common sense" approach to evaluating the Phase 2 WIPs.

Conclusion

In your letter of invitation, you also asked for information on how Pennsylvania's Chesapeake WIP will impact its rural communities. Attached to this testimony is a detailed summary of Pennsylvania's progress to implement agricultural activities identified in the Phase 1 WIP. These activities include funding for County Conservation District technical staff and BMP implementation from several of sources: Pennsylvania General Fund, PENNVEST, EPA's Chesapeake Bay Program, and USDA Natural Resources and Conservation Service. In addition, the WIP also includes a basin-wide component to achieve agricultural regulatory compliance. The federal EPA has certainly focused on the Chesapeake Bay as a priority item for attention. In some cases this has resulted in unfunded mandates to the states.

We all share the core desire to keep up the progress on making the Bay even cleaner than it is now. While doing so, we do need to be mindful of how we are going to pay for this progress and

what it is we are paying for. We need to be mindful of using available funds in an efficient and cost-effective manner so that we get the most “bang for the buck” that we can and avoid spending a lot of “bucks” for very little “bang”. We also believe that it is important that the federal government “put its money where its mouth is” and if it is going to prioritize the Chesapeake Bay program, to appropriately also prioritize it among the competing voices for the pool of federal funding that is available to bring to the effort.

PA Chesapeake Bay Watershed Implementation Plan

Agricultural Section – Strategy to Fill Gaps

Update September 2011

Non-Regulatory Efforts

Chesapeake Bay Implementation Grant Special Projects Funding

- DEP targeted priority practices (stream bank restoration/riparian buffers, fencing, manure storages/barnyard practices, cover crops/no-till, nutrient management/E&S plans) and priority watersheds. DEP awarded 46 projects to conservation districts for a total of \$800,492.95. Of the 46 projects, 41 were awarded for priority activities including 17 projects for nutrient management/conservation plans, six for fencing and four for cover crops/no-till planting. Of the other five - less than 10% of the funds were awarded - two supported on-going staffing commitments and three were for additional outreach activities. In addition, all but two of these 46 projects were in the targeted watersheds. These two supported (1) a county-wide outreach effort in Bradford and (2) on-going staffing commitment in Susquehanna County

Chesapeake Bay Implementation Grant Technician/Engineer Funding

- DEP revised the technician contracts for 2011-2012 to include specific tasks to expand the compliance assistance outreach for agriculture. The scope of work in these technician contracts required staff to spend a portion of their time contacting farms in their county to ensure all farm operators are aware of their responsibilities under PA erosion and sedimentation control regulations and the Manure Management Manual.

Agricultural Conservation Technician Funding

- PA Department of Agriculture, through the State Conservation Commission, provided ongoing cost-share funding \$527,000 in FY 2011-12 for Agricultural Conservation Technicians (ACT) in the CB watershed to provide technical assistance to farmers.

REAP Conservation Tax Credits

- The State Conservation Commission in FY 2011-12 allocated more than \$6 million (out of \$10 million available) in REAP state tax credits to farmers for conservation BMPs, no-till planters, no-till drills and low disturbance manure incorporation equipment.

PENNVEST Non-Point Source Funding

- On July 20, 2011, PENNVEST approved over \$1.9 million for six projects to address agricultural non-point source pollution. All six are in Lancaster County and will reduce nutrient runoff into local streams and the Chesapeake Bay watershed. The specific projects were:
 - A \$163,213 grant to construct a manure storage facility at a poultry operation in Paradise Township.
 - A \$573,188 grant to construct a manure storage facility at a farm in Ephrata Township.
 - A \$176,210 grant to construct a manure storage facility at a farm in Mount Joy Township.
 - A \$157,534 grant to construct manure litter storage shed at a poultry operation in Strasburg Township.
 - A \$657,050 grant to construct manure composting facility as well as an infiltration basin at a farm in Drumore Township.
 - A \$212,056 grant to construct a manure storage facility and make other improvements at a second farm in Strasburg Township.
- On April 20, 2011, PENNVEST approved five projects to address agricultural non-point source pollution. Three of the projects (\$1.069 million) were in the Chesapeake Bay watershed in Lancaster and Montour Counties. The specific projects were:
 - \$425,397 grant to construct various manure-control facilities at a dairy and poultry operation in West Lampeter Township that will reduce nutrient runoff into Pequea Creek in Lancaster County.
 - \$148,802 grant to construct manure-control facilities at a poultry farm in Strasburg Township, where nutrient runoff during wet weather is contaminating Big Beaver Creek in Lancaster County.
 - Montour County Conservation District received a \$495,000 grant to install manure and animal control facilities at two livestock farms where there is significant nutrient runoff into Mahoning Creek, Beaver Run and ultimately the Chesapeake Bay.

- On April 1, the PA Association of Conservation Districts hired Paul Herzer as the Non-Point Source Application Developer (AKA “NPS Circuit Rider”) to assist county conservation districts, watershed groups, environmental groups, municipalities and DEP Regional Offices with the PENNVEST application process. Funding for this position was awarded by DEP to PACD from the EPA Section 319 grant funds.
- PENNVEST announced the second round of nutrient credit trading auctions. These auctions will be held on November 2 and November 9, 2011. The Pennsylvania Infrastructure Investment Authority (PENNVEST), working in conjunction with the Department of Environmental Protection (DEP), will be hosting auctions for the sale and purchase of nutrient credits in the Susquehanna and Potomac watersheds to be conducted this fall. There will be two “spot” auctions of verified credits, applicable to the 2011 compliance year (i.e. October 1, 2010 – September 30, 2011). Both auctions will afford wastewater treatment plants in these two watersheds to purchase credits as a means of meeting their nitrogen and phosphorous discharge limits for the compliance year.

NRCS Financial Assistance – In federal FY 2010, the NRCS provided more than \$37 million in technical and financial assistance to Pennsylvania farmers in the CB watershed for the installation of best management practices through their CB Watershed Initiative (CBWI) and the Environmental Quality Incentive Program (EQIP).

NRCS Training for Field Staff

- NRCS, working with Penn State, developed the *AG 101: Understanding PA Farm Operations* online sessions that explore the many facets of farm types, operations management, economics, social aspects, and environmental considerations. The “winter burst” and “summer burst” of the series were held in 2011 and looked at what Pennsylvania agricultural producers manage as they grow food, fiber, and fuel. *AG 101* was developed to enhance the work of conservation practitioners who are on the front lines supporting producers in choosing, planning, and implementing the best management practices that preserve soil, water, and air quality. *AG 101* was jointly developed and sponsored by Penn State Cooperative Extension, SCC and the Pennsylvania Natural Resources Conservation Service in collaboration with PennAg Industries and the Pennsylvania Farm Bureau.
- NRCS, in cooperation with various partners, continues to provide annual training (1-week, intensive classroom and field experience) to approximately 50 entry level agricultural conservation technicians and conservation planners that work with farmers to plan and implement BMPs.

Legacy Sediment BMP

- DEP is cooperating with Robert Walter and Dorothy Merritts of Franklin and Marshall College in the development of a new BMP often referred to as Legacy Sediment. The Chesapeake Bay watershed model focuses largely on modern land use, particularly agriculture and construction, as the dominant sources of high suspended sediment and

nutrient loads. Research by Walter and Merritts documents, however, that historic sediment and associated nutrients eroded from the stream corridor upstream of breached millponds are also an important component of the total load in modern streams. Results show that stream corridor and streambank erosion is a major contributor to the suspended sediment and particulate-phosphorus loads carried by many streams, and that minor, but substantial, nitrogen loads are released as well. DEP's Legacy Sediment Workgroup developed the new Natural Floodplain, Stream, and Riparian Wetland Restoration BMP that addresses aquatic resources impaired by legacy sediment in 2008. Current activity is focused on establishing nutrient and sediment reduction efficiencies for the BMP so it can be included in the Chesapeake Bay watershed model. A demonstration project is underway in the Big Spring Run Basin in Lancaster County. The project involves approximately five acres of natural floodplain and riparian wetland restoration and 3,200 feet of natural stream restoration. The BMP implementation is supported by a funding partnership of DEP, Chesapeake Bay Commission, private landowner owner, Suburban Lancaster Sewer Authority, Foundation for Pennsylvania Watersheds, and Pennsylvania Environmental Council.

Regulatory Efforts

Continue Existing Regulatory Programs

- DEP, in cooperation with a number of agricultural agencies and organizations expanded outreach to ag community to increase compliance with Chapter 102 and manure management requirements. Chapter 102 regulations which in part regulate all agricultural operations that plow and till, were updated late in 2010. A revised PA Manure Management Manual was updated and recently released for use.
- Prepared "Am I in Compliance" brochure with distribution of ~20,000 copies since January 2011. Prepared "Ag E&S Barn sheet" for use in conservation district 100 site visits.
- Three training sessions held in conjunction with NRCS, State Conservation Commission (SCC) and PACD on February 24, March 2 and March 10 for about 200 people. The training was aimed at staff from USDA Natural Resources Conservation Service (NRCS), PA Department of Environmental Protection (DEP), and Conservation Districts who are involved in agricultural erosion and sediment control plans and conservation planning. Speakers from NRCS, SCC and DEP answered the question: what is an Agricultural Erosion & Sedimentation Plan? A detailed review of the Chapter 102.4 (a) requirements will be explained. Examples of the requirements for Ag E&S plans are: maps, treatment of animal heavy use areas, near stream cover requirements, and tolerable soil loss conditions for crop fields.
- PA SCC continued its oversight of the PA NM Program (Act 38) that requires that CAFOs and CAOs to develop and implement an approved PA NM Plan for their

operations. The SCC provided approximately \$1.7 million to fund NM technicians in county conservation districts within the CB watershed in FY 2011-12.

- PA Department of Agriculture, in cooperation with the SCC, continued certification programs for Certified NM Specialist (approximately 350 persons), Certified Manure Haulers and Brokers (approximately 925 persons) and Certified Odor Management Specialists (approximately 23 persons), providing more than 200 days of classroom and field based training annually to certified specialist in Pennsylvania.

Evaluate and Modify Regulatory Tools – Chapter 102 Regulations

- In July 2011, NRCS developed the “Conservation Planning and Regulatory Compliance Handbook” for NRCS staff. This guidance referenced Pennsylvania’s Chapter 102 regulations and provided tools and guidance for NRCS staff involved in conservation planning that addresses the requirements for Ag E&S. Guidance does not implement Pennsylvania’s regulatory program, but provides guidance as to what requirements are found in Pennsylvania and how this interfaces with NRCS conservation planning activities.

Evaluate and Modify Regulatory Tools – Manure Management Manual

- In 2011, DEP, in cooperation with SCC, PDA, NRCS and Penn State Cooperative Extension developed revisions to the Manure Management Manual. Final revisions were presented to DEP’s Agricultural Advisory Board in June. Manual was released for use in late October as a PA DEP Technical Guidance Document.

Basin-wide Component to Achieve Agricultural Regulatory Compliance

- In 2011, DEP continued revise delegation agreements with county conservation districts.
- In 2011, DEP continued development of “Model Agricultural Compliance Policy.” A preliminary draft has been developed and given a cursory review by DEP’s Bay Ag Water Quality Initiative Workgroup. Revisions are on-going with additional review by county conservation districts and others, in anticipation of presentation at “All Bay Meeting” in January 2012. On-target to meet roll-out in July 2012.
- In 2011, DEP revised the conservation district Bay technician contracts for 2011-2012 to include specific tasks to expand outreach for agriculture. The scope of work in these technician contracts required these 42 staff to undertake 100 site visits per staff person – or equivalent staff person – and DEP expects over 4,000 site visits by June 2012. Over 200 were conducted by September 2011. In addition, each bay conservation district was requested to submit a plan that identifies how each district will engage all farms in this regulatory outreach. These plans are required to be submitted in October 2011.

Significant training of staff via webinar and supplies of outreach material were provided. DEP press release was made and significant positive press coverage was received.

- In 2011, DEP received \$2.466 million from EPA via the Chesapeake Bay Regulatory and Accountability Program (CBRAP) grant. DEP used these funds to, among other things, support five new DEP staff positions. In March 2011, four of these staff were hired. (The 5th position is not yet hired, due to DEP difficulty in hiring this one staff position.) One staff position was in Harrisburg and has been engaged in development of the Manure Management Manual and the CAFO General Permit. Two staff positions were hired for the Southcentral Regional Office and have been engaged in compliance inspections. One position was hired in the Northcentral Regional Office and has been engaged in compliance inspections and regulatory outreach activities.
- WIP indicates "Conservation District Chesapeake Bay staff can address 18,000 farm operations – about half of the farms in the watershed – and inform them about compliance with their regulatory requirements." In 2011, DEP expects over 4,000 site visits will be made by these staff. Outreach plans for these conservation districts are expected to be available by December 2011 indicating how all 40,000 farm operations will be addressed by 2015.

Shale gas is shaving bills

Local utilities are charging less as the cost of natural gas falls.

By Andrew Maykuth
INQUIRER STAFF WRITER

In the raging shale-gas debate, there is much disagreement about the economic benefits of drilling.

An Ohio State University report released this week argues that industry-funded studies hype the number of jobs created in Ohio from drilling the Utica and Marcellus Shale formations. The 27-page study is already providing ammunition to anti-drilling activists, who believe that the environmental risks of shale gas outweigh the economic benefits.

While rival academics can argue about which econometric model is better at predicting the future, a relatively narrow measure of the benefit of shale gas is already affecting our monthly utility bills.

The five big regional utilities that serve Pennsylvania and New Jersey customers have reduced their prices on the gas portion of bills by amounts ranging from 37 percent to 52 percent since Dec. 1, 2008, reflecting the steady fall in market prices that experts attribute to new supplies of shale gas.

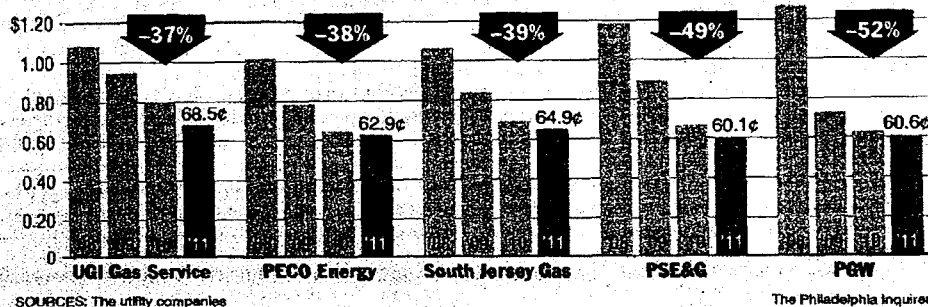
For the 500,000 customers of Philadelphia Gas Works, the cost of gas has decreased by more than half since December 2008, from \$1.27 per hundred cubic feet (ccf) to 61 cents.

What's that mean to a typical PGW customer who uses 900 ccf of natural gas a year? Annual savings of \$594.

That price only reflects the commodity charge in the bill, which utilities change periodically to respond to market fluctuations. Utilities aren't allowed to mark up the price,

The Falling Rate of Natural Gas

Commodity costs per 100 cubic feet, or therm, of gas.



so it should reflect what they actually pay for the fuel.

The other part of the bill is the delivery charge, or base rate, which covers the costs for customer service, billing, maintenance of the distribution system and profit.

Typically the delivery charge is the smaller part of the bill. But the cost of the natural gas has decreased so much in three years that the commodity now makes up only 40 percent of PGW's total rate, down from 61 percent in 2008.

Including both the gas cost and the delivery charge, PGW now charges 55 cents less per ccf than it charged in 2008. That translates into \$495 in annual savings, per household.

Other utilities in the region report similar numbers. A Peco Energy Co. customer is paying about \$350 less a year for gas. Public Service Electric & Gas Co. in New Jersey says a winter monthly bill for a typical customer is down 34 percent from 2008.

Though the utilities' gas prices are now at their lowest since 2002, customers in this region could see even more

savings in the future as production increases from Pennsylvania's Marcellus Shale wells.

About a third of the price that utilities pay for natural gas goes to pipeline companies that transport the fuel from the Gulf Coast to the Northeast. Most utilities like PGW have purchased long-term capacity on the pipelines to assure they get enough supply to meet their customers' demands.

As more pipelines are built in the region, local production could displace gas coming up from Texas and Louisiana, reducing the transmission costs for utilities in the Philadelphia area. It won't happen immediately, because utilities will have to let their pipeline contracts expire first.

But the wave is already starting. Last week, UGI Central Penn Gas Inc. tied 15,000 customers in northern Pennsylvania directly to Marcellus Shale gas producers, bypassing the big Interstate transmission system. Its customers now pay 54.7 cents per ccf for gas, about 20 percent less than UGI Gas Service customers

in other parts of Pennsylvania.

"If your distribution system is in proximity to the wells, there's a really substantial potential savings," said Joseph Swope, a UGI spokesman.

A study this month by market research firm IHS Global Insight projected that natural gas prices will be stable for decades. That's an opportunity for gas utilities to poach customers who use heating oil and propane, whose prices are tied to soaring crude oil costs.

PGW is offering a bonus of \$500 for oil customers to switch, and Peco is offering \$400. Additional bonuses for installing high-efficiency furnaces also may be available.

The cost to convert is prohibitive for customers who don't live near a gas main. But Peco says that more than 95,000 residential customers live along a gas main and are not using gas for heating now. They may be hearing from the utility soon.

Contact staff writer Andrew Maykuth at 215-854-2947. @Maykuth on Twitter or amaykuth@phillynews.com

Johnson & Johnson's McNeil Consumer Health Division, with headquarters and a factory in Fort Washington, is still issuing recalls of products McNeil recalled certain lots of Motrin IB coated and tablets in three packaging sizes this week.

The lot numbers are posted on McNeil's statement its Motrin site, www.motrin.com. The lot numbers the side of the carton.

The products were distributed in the U.S., Puer Bahamas, Fiji, Belize, St. Lucia and Jamaica.

J&J said earlier this year that it is spending \$11 million to fix the manufacturing problems at the 1 McNeil plants, which are in Fort Washington, Lan and Las Piedras, Puerto Rico. The U.S. Food and Administration found violations of the Food, Drug Cosmetic Act in 2009 and 2010, which prompted t closing of the Fort Washington plant in 2010. Tha is still not producing medicines.

The Lancaster and Las Piedras plants are operati under greater supervision that is part of the consen agreed to by the company after negotiations with prosecutors from the U.S. Justice Department and t

Philly Deals

Joseph N. DiStefano's blog on regional con
www.philly.com/phillydeals

Teva soothes neighbors new Phila. drug warehc

Suburban neighbors of Teva Pharmaceuticals' 120-foot-tall automated warehouse and truck at the onetime Budd Co. site on Red Lion Rd Northeast Philadelphia didn't immediately join the celebration over attracting a few hundred constru trucking, and logistics jobs to the site, most recent golf course.

The Teva property adjoins Lower Moreland Tow where local taxes are high, redevelopment land p are low along the flood plains, and local intersecti along Red Lion Road from Pine to Welsh are alre approaching jam levels during rush hours. L. Mor supervisors, led by chairman Jill Blumhardt, had l pressing Teva to talk; she and township manager Miller finally met with Teva managers Bill Murray Bobby Clarke this week. Here's how it went, says.

"They have indicated that truck traffic, the majo be going out toward Route 1 and the Philadelphia or points east. As far as commuter traffic, after th year they are expecting 250 employees over three So there will be some impact on our roads. We m them aware our intersections are considered poor traffic-engineering standpoint. We had not been in in any of their traffic studies."

Also, "They said stormwater would stay on site flow into Philadelphia storm sewers. It was good but we'll have to raise those plans."

Testimony of
Michael Krancer, Secretary
Pennsylvania Department of Environmental Protection
Before the U.S. House of Representatives Committee on Agriculture
Subcommittee on Conservation, Energy, and Forestry
1300 Longworth House Office Building
Thursday, November 3, 2011
10:00 a.m.

Introduction

Chairpersons Thompson and Holden and members of the Subcommittee, thank you for the opportunity to appear before you to discuss Pennsylvania's efforts to comply with the U.S. Environmental Protection Agency's (EPA's) expectations for the Chesapeake Bay Total Maximum Daily Load (TMDL), the Pennsylvania Phase 2 Chesapeake Watershed Implementation Plan (WIP) and their impacts on rural communities.

Pennsylvania is committed to protecting and enhancing our streams and watersheds. The efforts here at home will in turn help in further restoring the Chesapeake Bay by 2025. Over the years significant progress has been made to reduce nitrogen and phosphorous pollution of local waters in Pennsylvania's watersheds. According to EPA's current watershed model, when compared to 1985, Pennsylvania has achieved 27% of the nitrogen reductions, 31% of the phosphorous reductions, and 50% of the sediment reductions needed to reach the 2025 restoration targets. This is real progress but more needs to be done. When compared to current 2010 progress reported by the watershed model, Pennsylvania needs to achieve an additional 33.23 million pound reduction in nitrogen, 1.26 million pound reduction in phosphorous, and 524.4 million pound reduction in sediment by 2025. It should be noted that EPA's watershed model can be a useful tool to help guide management actions and project their results. It is not, however, sufficiently precise to measure actual progress or lack thereof. It should not be used in a regulatory context to determine whether an enforcement action or other penalty is appropriate.

Basic Statutory Background

The federal Clean Water Act requires states to assess their waterbodies to identify those not meeting water quality standards. If a waterbody is not meeting standards, it is listed as impaired and reported to the EPA. Chesapeake Bay tidal waters in Virginia, Maryland and the District of Columbia were listed as impaired by the states and EPA in 1998. The Act then requires development of a Total Maximum Daily Load (TMDL) for the pollutants that caused the water quality violations. A TMDL calculates the maximum amount of a specific pollutant that a waterbody can receive and still meet water quality standards. It also establishes a pollutant budget or "diet," which allocates portions of the overall pollution load to the pollutant's various sources. The Chesapeake Bay TMDL published by EPA on December 29, 2010 establishes load allocations for nitrogen, phosphorus and total suspended solids based in part on Pennsylvania's Chesapeake WIP. In the TMDL, EPA also established a TMDL accountability system, including

the development of a Phase 2 Chesapeake WIP and two-year milestones. Pennsylvania completed its Phase 1 WIP in December 2010 at the major river basin scale (e.g. Susquehanna). The draft Phase 2 WIP is due to EPA on December 15, 2011, and the final is due March 1, 2011.

Pennsylvania Success Stories

Pennsylvania has a long history of success since it became active in Chesapeake Bay restoration activities in 1983. Much of this success is due to the support of Pennsylvania's General Assembly and partnerships with the agricultural sector. This leadership derives from the Commonwealth's set of agricultural stewardship firsts, including:

- The first Bay state to require mandatory farm nutrient management plans;
- The first Bay state to regulate nitrogen and phosphorus in its nutrient management program;
- The first EPA-approved regulatory program for concentrated animal feeding operations;
- The first Bay state to permanently preserve 20 percent (more than 3 million acres) of land in the watershed.
- The first Bay state to meet its goal to plant 3,736 miles of forest buffers by the year 2010. The state has planted a total of 3,894 miles of forest buffers along waterways since 2002; and
- Pennsylvania is home to the largest Conservation Resource Enhancement Program (CREP) in the entire nation. The CREP program delivers more than \$50 million in state and federal assistance and targets key edge-of-stream BMPs to maximize water quality.

Recent History With Respect To the Phase 2 Water Implementation Plan Process

You are probably most interested in the most recent events regarding the Phase 2 WIP process as that is what has been the topic of most of the discussion and some very recent media attention in both Pennsylvania and Virginia. So, let me address that first.

In EPA's original March 2011 Phase 2 WIP guide, EPA expected each state to sub-divide its load allocations to a more local level in Phase 2 (e.g., county). As Pennsylvania and the Chesapeake watershed jurisdictions began to review Chesapeake Bay watershed model outputs at county levels, they determined that the model had serious technical deficiencies that do not provide full nutrient reduction credit for several nonpoint source Best Management Practices (BMPs). Moreover, EPA was intent on using the model in the Phase 2 WIP process as a metric to drive huge expenditures and determine compliance where the only proper role of any model would be as a prediction tool.

Pennsylvania aired these technical concerns early on. We directed a letter dated May 26, 2011 to Administrator Jackson on this topic. (A copy of that letter is attached hereto as Exhibit A). EPA was dismissive of the technical concerns outlined. Pennsylvania and other states continued to air these technical concerns to EPA at a September 16, 2011 meeting of State Secretaries and Deputy Secretaries with the EPA Region III Regional Administrator. Again, EPA was dismissive saying basically to us "get over it" or "get beyond it". EPA's public statements were similar. Indeed the Senior EPA Policy Advisor on the Chesapeake Bay dismissed without

dealing with the technical points the states had been making by quipping in a Virginia newspaper article, "let's get on with it." (A copy of that article is attached hereto as Exhibit B). The issue proved hard for EPA to escape as public media attention rose as is evidenced by the Virginia newspaper article just mentioned and a front page article of the October 2, 2011 *Altoona Mirror* under the headline: "Krancor: EPA Is Rushing Bay Cleanup Regulations; Pennsylvania Experts Disagree With Agency's". (A copy of the *Altoona Mirror* Article is attached as Exhibit C).

I can report, though, that perhaps the persistence and the public media attention may have proven worthwhile. Right after the *Altoona Mirror* story ran, we received a letter from the Regional Administrator in which EPA, for the first time, recognizes that there are limitations to the application of the watershed model at a finer scale, and clarified its Phase 2 WIP guide to allow jurisdictions to submit watershed model input decks at the major basin (e.g. Susquehanna) scale. The letter also says that the model is one of several points by which EPA will measure the state's performance. Also, EPA has modified to some degree the nature of what has to be in the Phase II WIP—EPA says that the Phase II WIPs don't have to be so specific—we can identify "local area targets" or actions that local areas can take to fulfill their contributions toward meeting Chesapeake goals. Further, EPA also said that "common sense" will be used to assess progress by jurisdictions in developing their Phase 2 WIPs and achieving milestone commitments, and consider other tools and data besides the model.

Time will tell whether EPA is serious or just placating, especially regarding the comment about using "common sense". We certainly still have disagreement with EPA on the nature of the model and what it should or can be used for. However, it does appear that, at least for the Phase 2 WIP process, we may now be able to proceed with that in an "agree to disagree" mode

Ultimately, the jurisdictions and EPA have the same goal – to remove the Chesapeake Bay from the CWA list of impaired waters and to improve local water quality. As long as EPA uses a common sense approach, Pennsylvania will continue to be a strong partner at the table.

Having gotten you up to date, let me now go back a bit in history and explain how we got to where we are now which will give an opportunity for me to provide more details about the actual process.

Phase 1 WIP Background

In Pennsylvania, our Chesapeake watershed stakeholders were actively involved in the development of our Phase 1 WIP and were a major reason that we were able to draft the plan successfully. The Department of Environmental Protection (DEP) convened a Chesapeake WIP Management Team to guide the development of the WIP. Over 125 individuals participated in the Management Team and its three workgroups focusing on agriculture, development and wastewater issues. Pennsylvania submitted its draft Phase 1 WIP to EPA on schedule – September 1, 2010. DEP continued to work with EPA to refine the WIP through the end of December. While EPA praised Pennsylvania in a December 29, 2010 letter, ultimately, when EPA issued the Chesapeake Bay TMDL, they imposed enhanced oversight and potential actions for agriculture and wastewater, and a regulatory "backstop" for urban/suburban stormwater.

Pennsylvania's Phase 1 WIP included both nonpoint source and point source reduction strategies. The nonpoint source strategy included a long list of Best Management Practices (BMPs) submitted to EPA's Chesapeake Bay watershed model. The point source component included the Point Source Compliance Strategy for wastewater treatment plants previously adopted in 2006. Because the point source strategy did not change, our Phase 1 WIP focus was to identify and develop the programs that support the implementation of non-point source BMPs to meet Pennsylvania's TMDL allocation.

Pennsylvania's WIP is based on three themes. The first is Milestone Implementation & Tracking. EPA uses the Chesapeake Bay watershed model to measure state progress – but the watershed model only knows what is reported to it. We determined that there are many BMPs being installed voluntarily with no government funding that do not get reported to the model. DEP supported several pilot projects to get a handle on the unreported BMPs. For example, in Bradford County, it was determined that 85% of the no-till activities are not cost-shared or reported to the watershed model. The WIP includes several new initiatives to improve BMP reporting.

Another key initiative is to promote the "Million Pound" project. The goal is to achieve a million pounds of nutrient reductions annually through grants and other funding sources. Pennsylvania Infrastructure Investment Authority (PENNVEST) funds are newly targeted to green initiatives and non-point source projects. Pennsylvania's Growing Greener grants give special consideration for Chesapeake Bay nutrient reductions.

The second theme of Pennsylvania's WIP is Advanced Technology and Nutrient Trading. Pennsylvania has learned that harnessing market forces can be an effective way to achieve environmental regulatory goals at less expense than traditional command and control regulations. For example, in 2008, Fairview Township decided to use credits to meet its nutrient reduction obligation with a cost savings of approximately 75%. The Commonwealth has been leading the way nationally in developing its nutrient trading program. The program is one of the first programs in the country to have both nonpoint sources and point sources participating in a nutrient credit trading program. Pennsylvania's program is also designed to be protective of the Chesapeake Bay by capping the amount of credits that can be annually traded.

Pennsylvania has completed over 10 nonpoint source to point source trades – where farmers go above and beyond their compliance requirements to sell credits to wastewater treatment plants. DEP has certified 97 projects for credit generation. And PENNVEST now has a track record of successful auctions to buy and sell credits. PENNVEST completed two auctions in 2010 and has 2 auctions planned for 2011. Auctions will continue next year and the years beyond. In addition to the day to day operation of the nutrient trading program, DEP is working with EPA Region 3 as they complete programmatic reviews of offset and credit trading programs across the Chesapeake Bay watershed. DEP worked closely with EPA when developing Pennsylvania's nutrient trading program, which EPA supported at the time. DEP can understand EPA's desire to examine the Bay jurisdictions' programs from a regional perspective. But Pennsylvania feels

strongly that the Federal agency should respect the Bay jurisdictions' programs that are working successfully toward the restoration and maintenance of the water quality of the Chesapeake Bay.

Pennsylvania has promoted advanced technology projects by providing financing loans from PENNVEST. DEP has been working with the Department of Agriculture and a number of companies looking to install various technologies such as co-generation on dairy, poultry and hog operations. Many of these technologies can produce electricity and marketable soil amendments; reduce methane emissions; and generate renewable energy, nutrient reduction and carbon credits which can then be sold. Projects of this nature can support three priorities in the Chesapeake Bay region: maintaining a vibrant farming economy; restoring and protecting the water quality of Pennsylvania streams and the Chesapeake Bay; and providing crucial economic development benefits to rural businesses and communities. Manure-to-energy projects are just the first of many promising technologies the Commonwealth supports that advance broad based environmental benefits.

The third theme of Pennsylvania's WIP is enhancing compliance efforts for wastewater treatment plants, agriculture and stormwater. Pennsylvania's Point Source Strategy developed in December 2006 remains in place – and the Nutrient Trading Program provides an option for compliance. New funding from EPA will support compliance and inspection activities for our CAFO, stormwater and agriculture regulatory programs. For agriculture, for instance, each Pennsylvania conservation district will be required to undertake 100 farm visits in the first year. Over 4,000 farm operations will be notified of Pennsylvania's existing environmental requirements.

Phase 2 WIP

On August 1, 2011, EPA issued revised TMDL planning targets for the Phase 2 WIPs based on a revised Chesapeake Bay watershed model. While the numbers look different from Pennsylvania's 2010 TMDL allocations, they require the same level of effort as for the 2010 TMDL allocations. To facilitate local implementation of necessary reduction actions to meet the allocations, EPA directed the Chesapeake watershed states to sub-divide the reductions by local areas in the Phase 2 WIP. Pennsylvania chose to sub-divide loads at the county-level, as the EPA Chesapeake Bay watershed model is based in part on county level data. As discussed earlier in this testimony, that guide has since been clarified to allow jurisdictions to submit watershed model input decks at the major basin (e.g. Susquehanna) scale instead of more local areas.

For the Phase 2 WIP, we need to build on local partnerships – those efforts going on in county conservation districts and municipalities that work to improve local stream water quality. Lancaster County's Clean Water Consortium, Lycoming County's Nutrient Trading Program, York County's Integrated Water Resources Plan, and the Conewago Creek Watershed Initiative are examples of local people taking local action to restore local streams.

On August 3, DEP convened a Phase 2 Chesapeake WIP Summit, our first major outreach to communicate to local stakeholders on what EPA expects for the Phase 2 WIP. On August 10,

EPA held a Chesapeake Bay Model Workshop at the Rachel Carson State Office Building, to inform stakeholders on the models that are used to build our WIPs and measure our progress.

DEP worked with its WIP Management Team and workgroups to develop draft goals at the county level throughout the Chesapeake watershed. We took the Draft WIP County Planning Target sheets to eight Regional County Workshops, starting October 13 through November 2, to ground-truth them and receive feedback. Invitees to the workshops included county conservation district managers, county planning commission directors, and municipalities representing the PA League of Cities and Municipalities, PA State Association of Township Commissioners, PA State Association of Boroughs, and the PA State Association of Township Supervisors. However, anyone was welcome to attend and listen to the discussions.

The county planning targets addressed only those loads that can be reduced by Best Management Practices (BMPs). This included both regulatory and non-regulatory loads for agriculture, stormwater and forest. Wastewater treatment plant point source reductions were not included because they were previously addressed by the 2006 Chesapeake Bay Compliance Strategy. The county planning targets were for planning purposes only, and do not become regulatory allocations at the county level. The identified Pollution Reduction Actions represented one scenario from the Chesapeake Bay watershed model that meets the reduction targets. There are other equally valid combinations of actions that could also meet the reduction target. With input from counties and municipalities, DEP will then prepare its Draft Phase 2 WIP watershed model input deck at the major basin scale for submission to EPA by December 15.

Similar to the Phase 1 WIP, EPA will evaluate each state's Phase 2 WIP. Should we meet EPA's expectations, there is opportunity to have EPA remove the TMDL "backstop" imposed on the urban stormwater sector. That backstop provided notice that EPA would consider expanding the Municipal Separate Storm Sewer Systems (MS4s) coverage in Pennsylvania's Chesapeake watershed should we not make sufficient progress in reducing urban stormwater loads. If we do not meet EPA's expectations, they could impose additional consequences. We are looking for EPA to bring its new "common sense" approach to evaluating the Phase 2 WIPs.

Conclusion

In your letter of invitation, you also asked for information on how Pennsylvania's Chesapeake WIP will impact its rural communities. Attached to this testimony is a detailed summary of Pennsylvania's progress to implement agricultural activities identified in the Phase 1 WIP. These activities include funding for County Conservation District technical staff and BMP implementation from several of sources: Pennsylvania General Fund, PENNVEST, EPA's Chesapeake Bay Program, and USDA Natural Resources and Conservation Service. In addition, the WIP also includes a basin-wide component to achieve agricultural regulatory compliance. The federal EPA has certainly focused on the Chesapeake Bay as a priority item for attention. In some cases this has resulted in unfunded mandates to the states.

We all share the core desire to keep up the progress on making the Bay even cleaner than it is now. While doing so, we do need to be mindful of how we are going to pay for this progress and

what it is we are paying for. We need to be mindful of using available funds in an efficient and cost-effective manner so that we get the most "bang for the buck" that we can and avoid spending a lot of "bucks" for very little "bang". We also believe that it is important that the federal government "put its money where its mouth is" and if it is going to prioritize the Chesapeake Bay program, to appropriately also prioritize it among the competing voices for the pool of federal funding that is available to bring to the effort.

PA Chesapeake Bay Watershed Implementation Plan

Agricultural Section – Strategy to Fill Gaps

Update September 2011

Non-Regulatory Efforts

Chesapeake Bay Implementation Grant Special Projects Funding

- DEP targeted priority practices (stream bank restoration/riparian buffers, fencing, manure storages/barnyard practices, cover crops/no-till, nutrient management/E&S plans) and priority watersheds. DEP awarded 46 projects to conservation districts for a total of \$800,492.95. Of the 46 projects, 41 were awarded for priority activities including 17 projects for nutrient management/conservation plans, six for fencing and four for cover crops/no-till planting. Of the other five - less than 10% of the funds were awarded - two supported on-going staffing commitments and three were for additional outreach activities. In addition, all but two of these 46 projects were in the targeted watersheds. These two supported (1) a county-wide outreach effort in Bradford and (2) on-going staffing commitment in Susquehanna County

Chesapeake Bay Implementation Grant Technician/Engineer Funding

- DEP revised the technician contracts for 2011-2012 to include specific tasks to expand the compliance assistance outreach for agriculture. The scope of work in these technician contracts required staff to spend a portion of their time contacting farms in their county to ensure all farm operators are aware of their responsibilities under PA erosion and sedimentation control regulations and the Manure Management Manual.

Agricultural Conservation Technician Funding

- PA Department of Agriculture, through the State Conservation Commission, provided ongoing cost-share funding \$527,000 in FY 2011-12 for Agricultural Conservation Technicians (ACT) in the CB watershed to provide technical assistance to farmers.

REAP Conservation Tax Credits

- The State Conservation Commission in FY 2011-12 allocated more than \$6 million (out of \$10 million available) in REAP state tax credits to farmers for conservation BMPs, no-till planters, no-till drills and low disturbance manure incorporation equipment.

PENNVEST Non-Point Source Funding

- On July 20, 2011, PENNVEST approved over \$1.9 million for six projects to address agricultural non-point source pollution. All six are in Lancaster County and will reduce nutrient runoff into local streams and the Chesapeake Bay watershed. The specific projects were:
 - A \$163,213 grant to construct a manure storage facility at a poultry operation in Paradise Township.
 - A \$573,188 grant to construct a manure storage facility at a farm in Ephrata Township.
 - A \$176,210 grant to construct a manure storage facility at a farm in Mount Joy Township.
 - A \$157,534 grant to construct manure litter storage shed at a poultry operation in Strasburg Township.
 - A \$657,050 grant to construct manure composting facility as well as an infiltration basin at a farm in Drumore Township.
 - A \$212,056 grant to construct a manure storage facility and make other improvements at a second farm in Strasburg Township.
- On April 20, 2011, PENNVEST approved five projects to address agricultural non-point source pollution. Three of the projects (\$1.069 million) were in the Chesapeake Bay watershed in Lancaster and Montour Counties. The specific projects were:
 - \$425,397 grant to construct various manure-control facilities at a dairy and poultry operation in West Lampeter Township that will reduce nutrient runoff into Pequea Creek in Lancaster County.
 - \$148,802 grant to construct manure-control facilities at a poultry farm in Strasburg Township, where nutrient runoff during wet weather is contaminating Big Beaver Creek in Lancaster County.
 - Montour County Conservation District received a \$495,000 grant to install manure and animal control facilities at two livestock farms where there is significant nutrient runoff into Mahoning Creek, Beaver Run and ultimately the Chesapeake Bay.

- On April 1, the PA Association of Conservation Districts hired Paul Herzer as the Non-Point Source Application Developer (AKA "NPS Circuit Rider") to assist county conservation districts, watershed groups, environmental groups, municipalities and DEP Regional Offices with the PENNVEST application process. Funding for this position was awarded by DEP to PACD from the EPA Section 319 grant funds.
- PENNVEST announced the second round of nutrient credit trading auctions. These auctions will be held on November 2 and November 9, 2011. The Pennsylvania Infrastructure Investment Authority (PENNVEST), working in conjunction with the Department of Environmental Protection (DEP), will be hosting auctions for the sale and purchase of nutrient credits in the Susquehanna and Potomac watersheds to be conducted this fall. There will be two "spot" auctions of verified credits, applicable to the 2011 compliance year (i.e. October 1, 2010 – September 30, 2011). Both auctions will afford wastewater treatment plants in these two watersheds to purchase credits as a means of meeting their nitrogen and phosphorous discharge limits for the compliance year.

NRCS Financial Assistance – In federal FY 2010, the NRCS provided more than \$37 million in technical and financial assistance to Pennsylvania farmers in the CB watershed for the installation of best management practices through their CB Watershed Initiative (CBWI) and the Environmental Quality Incentive Program (EQIP).

NRCS Training for Field Staff

- NRCS, working with Penn State, developed the *AG 101: Understanding PA Farm Operations* online sessions that explore the many facets of farm types, operations management, economics, social aspects, and environmental considerations. The "winter burst" and "summer burst" of the series were held in 2011 and looked at what Pennsylvania agricultural producers manage as they grow food, fiber, and fuel. *AG 101* was developed to enhance the work of conservation practitioners who are on the front lines supporting producers in choosing, planning, and implementing the best management practices that preserve soil, water, and air quality. *AG 101* was jointly developed and sponsored by Penn State Cooperative Extension, SCC and the Pennsylvania Natural Resources Conservation Service in collaboration with PennAg Industries and the Pennsylvania Farm Bureau.
- NRCS, in cooperation with various partners, continues to provide annual training (1-week, intensive classroom and field experience) to approximately 50 entry level agricultural conservation technicians and conservation planners that work with farmers to plan and implement BMPs.

Legacy Sediment BMP

- DEP is cooperating with Robert Walter and Dorothy Merriitts of Franklin and Marshall College in the development of a new BMP often referred to as Legacy Sediment. The Chesapeake Bay watershed model focuses largely on modern land use, particularly agriculture and construction, as the dominant sources of high suspended sediment and

nutrient loads. Research by Walter and Merriots documents, however, that historic sediment and associated nutrients eroded from the stream corridor upstream of breached millponds are also an important component of the total load in modern streams. Results show that stream corridor and streambank erosion is a major contributor to the suspended sediment and particulate-phosphorus loads carried by many streams, and that minor, but substantial, nitrogen loads are released as well. DEP's Legacy Sediment Workgroup developed the new Natural Floodplain, Stream, and Riparian Wetland Restoration BMP that addresses aquatic resources impaired by legacy sediment in 2008. Current activity is focused on establishing nutrient and sediment reduction efficiencies for the BMP so it can be included in the Chesapeake Bay watershed model. A demonstration project is underway in the Big Spring Run Basin in Lancaster County. The project involves approximately five acres of natural floodplain and riparian wetland restoration and 3,200 feet of natural stream restoration. The BMP implementation is supported by a funding partnership of DEP, Chesapeake Bay Commission, private landowner owner, Suburban Lancaster Sewer Authority, Foundation for Pennsylvania Watersheds, and Pennsylvania Environmental Council.

Regulatory Efforts

Continue Existing Regulatory Programs

- DEP, in cooperation with a number of agricultural agencies and organizations expanded outreach to ag community to increase compliance with Chapter 102 and manure management requirements. Chapter 102 regulations which in part regulate all agricultural operations that plow and till, were updated late in 2010. A revised PA Manure Management Manual was updated and recently released for use.
- Prepared "Am I in Compliance" brochure with distribution of ~20,000 copies since January 2011. Prepared "Ag E&S Barn sheet" for use in conservation district 100 site visits.
- Three training sessions held in conjunction with NRCS, State Conservation Commission (SCC) and PACD on February 24, March 2 and March 10 for about 200 people. The training was aimed at staff from USDA Natural Resources Conservation Service (NRCS), PA Department of Environmental Protection (DEP), and Conservation Districts who are involved in agricultural erosion and sediment control plans and conservation planning. Speakers from NRCS, SCC and DEP answered the question: what is an Agricultural Erosion & Sedimentation Plan? A detailed review of the Chapter 102.4 (a) requirements will be explained. Examples of the requirements for Ag E&S plans are: maps, treatment of animal heavy use areas, near stream cover requirements, and tolerable soil loss conditions for crop fields.
- PA SCC continued its oversight of the PA NM Program (Act 38) that requires that CAFOs and CAOs to develop and implement an approved PA NM Plan for their

operations. The SCC provided approximately \$1.7 million to fund NM technicians in county conservation districts within the CB watershed in FY 2011-12.

- PA Department of Agriculture, in cooperation with the SCC, continued certification programs for Certified NM Specialist (approximately 350 persons), Certified Manure Haulers and Brokers (approximately 925 persons) and Certified Odor Management Specialists (approximately 23 persons), providing more than 200 days of classroom and field based training annually to certified specialist in Pennsylvania.

Evaluate and Modify Regulatory Tools – Chapter 102 Regulations

- In July 2011, NRCS developed the “Conservation Planning and Regulatory Compliance Handbook” for NRCS staff. This guidance referenced Pennsylvania’s Chapter 102 regulations and provided tools and guidance for NRCS staff involved in conservation planning that addresses the requirements for Ag E&S. Guidance does not implement Pennsylvania’s regulatory program, but provides guidance as to what requirements are found in Pennsylvania and how this interfaces with NRCS conservation planning activities.

Evaluate and Modify Regulatory Tools – Manure Management Manual

- In 2011, DEP, in cooperation with SCC, PDA, NRCS and Penn State Cooperative Extension developed revisions to the Manure Management Manual. Final revisions were presented to DEP’s Agricultural Advisory Board in June. Manual was released for use in late October as a PA DEP Technical Guidance Document.

Basin-wide Component to Achieve Agricultural Regulatory Compliance

- In 2011, DEP continued revise delegation agreements with county conservation districts.
- In 2011, DEP continued development of “Model Agricultural Compliance Policy.” A preliminary draft has been developed and given a cursory review by DEP’s Bay Ag Water Quality Initiative Workgroup. Revisions are on-going with additional review by county conservation districts and others, in anticipation of presentation at “All Bay Meeting” in January 2012. On-target to meet roll-out in July 2012.
- In 2011, DEP revised the conservation district Bay technician contracts for 2011-2012 to include specific tasks to expand outreach for agriculture. The scope of work in these technician contracts required these 42 staff to undertake 100 site visits per staff person – or equivalent staff person – and DEP expects over 4,000 site visits by June 2012. Over 200 were conducted by September 2011. In addition, each bay conservation district was requested to submit a plan that identifies how each district will engage all farms in this regulatory outreach. These plans are required to be submitted in October 2011.

Significant training of staff via webinar and supplies of outreach material were provided. DEP press release was made and significant positive press coverage was received.

- In 2011, DEP received \$2.466 million from EPA via the Chesapeake Bay Regulatory and Accountability Program (CBRAP) grant. DEP used these funds to, among other things, support five new DEP staff positions. In March 2011, four of these staff were hired. (The 5th position is not yet hired, due to DEP difficulty in hiring this one staff position.) One staff position was in Harrisburg and has been engaged in development of the Manure Management Manual and the CAFO General Permit. Two staff positions were hired for the Southcentral Regional Office and have been engaged in compliance inspections. One position was hired in the Northcentral Regional Office and has been engaged in compliance inspections and regulatory outreach activities.
- WIP indicates "Conservation District Chesapeake Bay staff can address 18,000 farm operations – about half of the farms in the watershed – and inform them about compliance with their regulatory requirements." In 2011, DEP expects over 4,000 site visits will be made by these staff. Outreach plans for these conservation districts are expected to be available by December 2011 indicating how all 40,000 farm operations will be addressed by 2015.